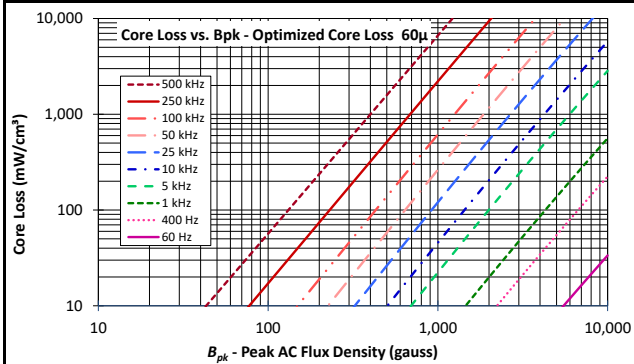




Material: Optimized Core Loss 60μ Toroid

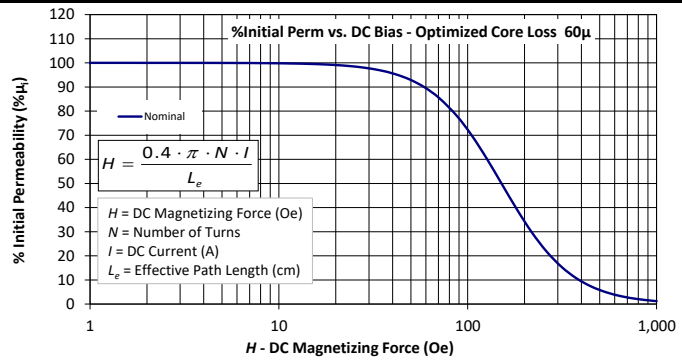
Revision 20200519 - Generated 2020-May-26

μi (reference)	060
Typical AL tolerance	± 8%
Density	6.8 g/cm ³
Bsat	11.9 kG
Core Loss (50kHz, 1000g)	263 mW/cm ³ (nom) 302 mW/cm ³ (max)
	72.3% (nom)
%Perm at DC Bias (100 Oe)	63.0% (min)



$$\text{Core Loss (mW/cc)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$$

where B_{pk} expressed in gauss, f in hertz, and:
 $a=2.288E+09$, $b=1.502E+09$, $c=3.344E+06$, $d=1.782E-14$

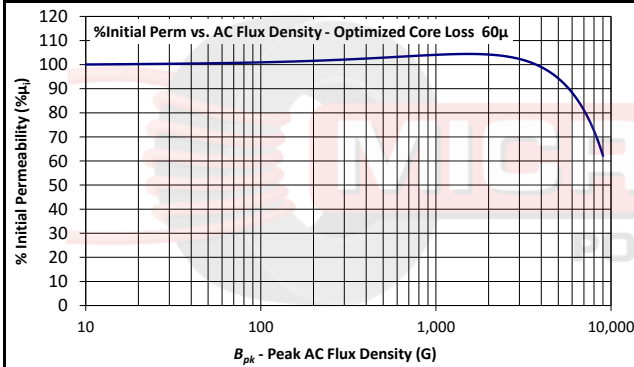


$$H = \frac{0.4 \cdot \pi \cdot N \cdot I}{L_e}$$

H = DC Magnetizing Force (Oe)
 N = Number of Turns
 I = DC Current (A)
 L_e = Effective Path Length (cm)

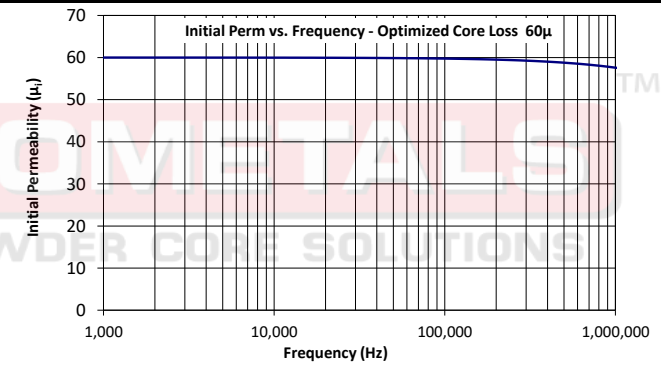
$$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$$

where H expressed in oersted, and:
 $a=1.000E-02$, $b=8.573E-08$, $c=2.326E+00$, $d=0.000E+00$



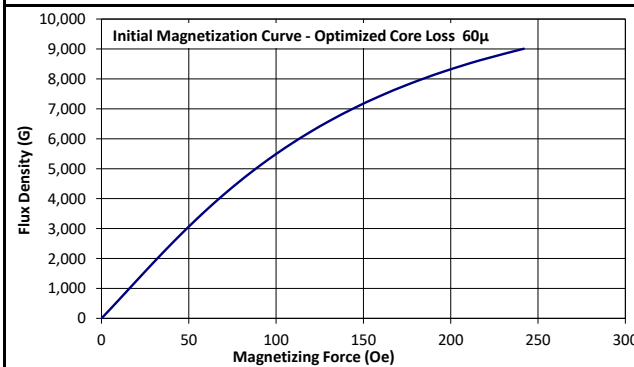
$$\% \mu_i = \frac{1}{\frac{1}{a + bB^c} + \frac{1}{dB^e} + \frac{1}{f}}$$

where B_{pk} expressed in gauss, and:
 $a=8.767E+02$, $b=6.069E-01$, $c=1.079E+00$, $d=2.543E+09$, $e=-1.752E+00$, $f=1.129E+02$



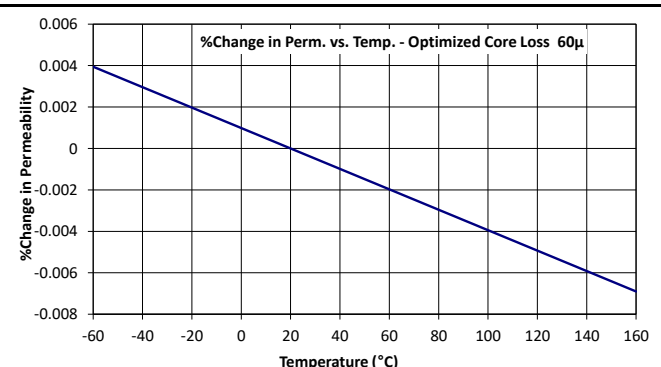
$$\mu_i = \frac{1}{a + bf^c} + d$$

where f expressed in hertz, and:
 $a=1.667E-02$, $b=6.059E-10$, $c=1.010E+00$, $d=0.000E+00$



$$B_{pk} = \frac{\mu_i}{\frac{1}{H + aH^b} + \frac{1}{cH^d} + \frac{1}{e}}$$

where B_{pk} expressed in gauss, H in oersted, and:
 $a=1.147E-02$, $b=1.891E+00$, $c=2.006E+04$, $d=2.633E+00$, $e=1.991E+02$



$$\left(\frac{\Delta \mu_i}{\mu_i} \right) = a(T - 20) * 0.0001$$

where T expressed in celsius, and:
 $a=-4.930E-01$, $b=-7.252E-03$, $c=3.681E-02$, $d=2.183E-04$, $e=-6.097E-04$